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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,991	01/15/2002	Alphons Antonius Maria Lambertus Bruekers	NL 010009	6337
24737	7590	08/12/2004	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS			CHASE, SHELLY A	
P.O. BOX 3001			ART UNIT	
BRIARCLIFF MANOR, NY 10510			PAPER NUMBER	

2133

DATE MAILED: 08/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary**Application No.**

10/046,991

Applicant(s)

BRUEKERS ET AL.

Examiner

Shelly A Chase

Art Unit

2133

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1-15-2002.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1 to 18 are presented for examination. Acknowledgement is made of preliminary amendment filed 1-15-2001.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119, which papers have been placed of record in the file.

Information Disclosure Statement

3. The references listed in the information disclosure statement submitted on 1-15-2002 have been considered by examiner (see attached PTO-1449).

Specification

4. The abstract of the disclosure is objected to because of the reference to element numbers in parenthesis and reference to fig. 1, please remove these items from the abstract. Correction is required. See MPEP § 608.01(b).
5. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

Art Unit: 2133

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Objections

6. Claims 8 and 16 are objected to because of the following informalities: please revise since, the claims to which these claims (8 and 16) depend do not teach a decoder. Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

8. Claims **1, 3 to 8, 17 and 18** are rejected under 35 U.S.C. 102(e) as being anticipated by Maeda (USP 6658378 B1).

Claim **1**:

Maeda teaches a speech encoding system comprising: a class division and inputting sequence decision unit [23] receiving speech encoded data, classifying the received data into classes (see col. 5, lines 15 to 25) and a transmission path encoder [4] including a CRC calculating unit [5] generates CRC codes for the classes received from unit [23] (see col. 5, lines 25 to 40). Maeda also teaches the transmission path encoder [4] includes a convolutional encoder [6] for encoding the class data and the CRC added to it (see col. 5, lines 45 to 52).

Art Unit: 2133

As per claim **3**, Maeda teaches computing CRC codes (see col. 5, line 25).

As per claims **4** and **8**, Maeda teaches the transmission path encoder is a channel encoder (see col. 15, lines 8 to 12).

As per claims **5** to **7**, Maeda teaches a transmission path decoder [14] includes a convolutional decoder [16] decoding the received data and a CRC code comparator frame masking unit [15] comparing the CRC code appended to the encoded data with the CRC code computed according to the convolutional decoder (see col. 5, lines 53 to 67). Maeda also teaches that the encoded data is demodulated by demodulator [13], (see col. 6, lines 17 to 22 and col. 21 lines 66 et seq.), interpreted as "extracting the encoded packet and associated checksum from the received encoded signal."

Maeda also teaches that an adjustment step adjusts the output of the speech decoder based on the comparison results of the comparator (see col. 22, lines 10 to 21). Maeda further teaches that the frame masking state is updated depending on the CRC decoding results and interpolation and a mute variable is applied depending on the state variable (see col. 22, lines 22 to 67).

As per claims **17** and **18**, Maeda teaches the received speech data is divided into classes (see col. 5, lines 15 to 22) and the decision unit [23] includes a RAM device (see col. 5, lines 35 to 40).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim **2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda in view of Knecht et al. (USP 5592487).

As per claim **2**, Maeda does not specifically teach the checksum is added to the encoded packet as a separate packet; however, Knecht in an analogous art teaches that communication over a medium includes multiple packets wherein the checksum packet is a separate packet (see col. 3, lines 28 to 45). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the encoded packet for transmission of Maeda to include a separate checksum packet as taught by Knecht. This modification would have been obvious because a person of ordinary skill in the art would have been motivated to employ a packet format for achieving high speed communication as taught by Knecht (see col. 1, lines 23 et seq.).

11. Claims **9** to **16** are (USP 6178535 B1) rejected under 35 U.S.C. 103(a) as being unpatentable over Kajala et al. in view of Knecht et al..

Claims **9** and **10**:

Kajala teaches a method for decreasing the frame error rate for transmitted data, utilizing a transmission and receiving system, the method comprising: a parity generation block [205] for computing parity check bits for the respective class bits (see col. 6, line 63 to 67) and convolutional encoder [206] encoding part of the protected data (see col. 7, lines 8 et seq.). **Kajala** also teaches that bits from group 1 and group 2 are combined to be channel coded (see col. 7, lines 8 to 10).

Kajala does not specifically teach a composition means is connected to the calculation means and the encoding means; however, **Knecht** in an analogous art teaches communication protocol for transmission data across a medium comprising a transmitter including a cache multiplexer receiving data bits and checksum bits, producing a signal to transmit on bus [12] (see col. 3, lines 1 to 15). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the signal for transmission of **Kajala** to include a multiplexor for combining the separate signals as taught by **Knecht**. This modification would have been obvious because a person of ordinary skill in the art would have been motivated to decrease communication errors by ensuring a proper signal is transmitted. As to the further limitation of the claim, **Knecht** teaches the checksum packet is a separate packet.

As per claim **11**, **Kajala** teaches computing CRC bits (see col. 6, lines 25 to 30).

As per claim **12**, **Kajala** teaches channel encoding the combined received data (see col. 7, lines 8 et seq.).

12. Claims **13** to **16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kajala et al. in view of Knecht et al., further in view of Maeda.

As per claims **13** to **16**, Kajala in view of Knecht teaches a bit grouping block [214] separating the coded and un-coded bits (see pg. 11, lines 10 to 15), a channel decoder [219] decodes the received data (see col. 11, lines 15 to 25) and a parity checking block [221] checks the order of the frame (see col. 11, lines 38 to 45).

Kajala in view of Knecht does not specifically teach a second calculation means computing a checksum and if a comparison is equal or unequal arranging for interpolating or muting; however, Maeda in an analogous art teaches that a transmission path decoder [14] includes a convolutional decoder [16] decoding the received data and a CRC code comparator frame masking unit [15] comparing the CRC code appended to the encoded data with the computed CRC code, computed according to the convolutional decoder (see col. 5, lines 53 to 67). Maeda also teaches that an adjustment step adjusts the output of the speech decoder based on the comparison results of the comparator (see col. 22, lines 10 to 21).

Maeda further teaches that the frame masking state is updated depending on the CRC decoding results and interpolation and a mute variable is applied depending on the state variable (see col. 22, lines 22 to 67). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the parity checking block of Kajala in view of Knecht to include the comparator unit as taught by Maeda. This modification would have been obvious because a person of ordinary skill in the art would have been motivated to employ a method for achieving high coding rate

Art Unit: 2133


by utilizing a decoding device capable of detecting errors as taught by Maeda (see col. 2, lines 19 et seq.).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shelly A Chase whose telephone number is 703-308-7246. The examiner can normally be reached on Mon-Thur from 8:00 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on 703-305-9595. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Shelly A Chase